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ABSTRACT

Using the search strategies described in preliminary project reports, research synthesis and/or analysis materials were selected for inclusion in the three annotated bibliographies in this final report. Topics are: (1) Basic Skills: Mathematics, (2) Basic Skills: Reading, and (3) Competency Based Education. Preceding the bibliographies are analytic papers in each of the three subject areas, analyzing the available material. These papers may be used separately or in conjunction with the bibliographies. (STS)

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Research and Policy Interpretations
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FINAL ANALYSES
AND
ANNOTATED BIBLIOGRAPHIES

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TABLE OF CONTENTS

INTRODUCTION 1

FINAL ANALYSIS SECTION
    Basic Skills: Mathematics 2

    Basic Skills: Reading 6

    Competency-Based Education 16

ANNOTATED BIBLIOGRAPHY SECTION
    Basic Skills: Mathematics 20

    Basic Skills: Reading
        Programmed Reading Materials. . . 60
        Reading Readiness 62
        Methods, Materials & Instruction . 65
        Comprehension & Motivation . . . 72
        Reading Problems & Evaluation . . 76
        Usable Research for the Educator. 81
        Research Priorities 88
        Summaries of Research 93

    Competency-Based Education 97

INTRODUCTION

Using the research synthesis materials identified through the search strategies, as described in the analysis papers, CEPM has selected appropriate materials for inclusion in the annotated bibliography and has used the bibliographic entries to analyze the strengths, weaknesses and gaps of the available research synthesis materials in the three priority areas: Basic Skills: Mathematics; Basic Skills: Reading; and Competency-Based Education.

Organization of the papers

The analysis section preceeds the annotated bibliography section. Each section consists of three papers, one in each of the priority areas in the following order: Basic Skills: Mathematics; Basic Skills: Reading; and Competency-Based Education.

Each of the three analysis papers is self-explanatory and includes a discussion of implications of the analysis. Thus, each paper may be used alone or in conjunction with its annotated bibliography, allowing for flexibility of usage.

FINAL ANALYSIS AND IMPLICATIONS OF MATH RESEARCH SYNTHESIS

Nearly all material considered is listed in ERIC files and with limited exceptions, is available from EDRS. Only materials from years 1970-1976 were considered. For example, if early reading of the abstract determined that the research had been completed in a country other than the United States, the item was excluded from further consideration. Only after determining the article was written between 1970 and 1976, the research had been completed in the United States, and in fact, it was an example of research synthesis and/or analysis, was it included for further review.

In addition, the materials were limited to basic skills and perhaps most importantly, the materials were limited to research synthesis and/or analysis. Examples of research synthesis or analysis included are bibliographies, research reviews, and reports of research utilization and implications of teachers, administrators and policy-makers. If bibliographies were not annotated, they were excluded. Also excluded were reports of single research studies regardless of how large, "think" pieces unless research analysis formed a portion of the work, textbooks, and interpretations of law.

As a result of reviewing numerous items related to math education research, it seems reasonable to conclude that the one best source for research synthesis and/or analysis in math education is found in the work of Jon L. Higgins. Located at Ohio State University's Center for Science and Math Education, Higgins has edited a series of publications entitled "Investigations in Math Education". Report topics can be seen in the annotated bibliography; however, often the articles include such diverse subject areas that it is difficult to adequately cover in an annotated bibliography. Hence, the reader may wish to pursue each report individually. In addition, Higgins research reporting section, Annual Meeting Reports of the National Council of Teachers of Math, is yet another publication useful to NCTM members, math teachers, professors, and researchers in math education areas.

Another author, Marilyn Suybam, appears to be a prolific and comprehensive writer in math education. At times, her work appears dull and unimaginative in terms of reporting; nevertheless, her work either alone or in conjunction with Fred J. Weaver appears frequently in math education research materials. Her SMEAC newsletter in math education, published by the ERIC Information Analysis Center for Science, Math and Environmental Education in Columbus, Ohio, seems to be written primarily for teachers of math. Much of her work appears to be useful for curriculum directors and teachers; however, some of the work such as"Attitudes and Interests,Set A, Using Research: A Key to Elementary School Math", appears to be too brief to be comprehensive. In addition, Suybam and Weaver's "Using Research: A Key to Elementary School Math Revision", has an interesting title; however, one wonders for whom it was really prepared, who would read and use the material.

SMEAC newsletters from 1971-73 were primarily planned for math teachers and curriculum planners. Their review on research on secondary and elementary math education for the years 1971-72 seemed useful to teachers at that time;

however, 1973 was the last time that material was printed.

A literature review about research related to problem solving in math education may be useful to teachers. Ronald G. Trimner's "A Review of the Research Relating Problem-Solving and Math Achievement to Psychological Variables and Relating Those Variables to Methods Involving or Compatible with Self-Correcting Manipulative Math Materials" has a lumpy title, but may be useful to math education researchers as well as teachers. Another item which may be useful for math education professors and researchers, but probably not very useful for math teachers, in Lars C. Jansson's "The Development of Deductive Reasoning: A Review of the Literature Pre-Version", which presents a review of literature concerning the development of deductive reasoning. Examples of empirical research Jansson includes are as follows: (a) assessment studies, (b) critical thinking, (c) instructional studies, (d) logic and proof. In addition to presenting findings of empirical research, Jansson talks about a conceptual framework, errors in deductive reasoning, a state of the art discussion, and suggestions for future research. Another paper which may be of interest to those concerned with empirical studies in math learning is Leslie P. Steffe's editing entitled "Research on Math Thinking of Young Children: Six Empirical Studies". Topics discussed are (1) equivalence and order relations, (2) classification and seriation, (3) interdependence of classification, seriation and number concepts, (4) Boolean Algebra, and (5) conservation and measurement.

Teachers who are interested particularly in preservice and inservice and specifically within the open classroom may find Nancy Langstaff's "Teaching in an Open Classroom: Informal Checks, Diagnosis and Learning Strategies For Beginning Reading" to be useful. Published by the National Association of Independent Schools, the work discusses beginning reading and math in open classrooms and presents case studies of five children, illustraing how diagnosis and learning strategies were initiated. In addition, evaluation procedures for math and reading are included.

A thesis which may have social, legal, economic, technical and political implications is John A. McKenney's "The Development and Implementation of a Tutorial Program for Parents to Improve the Reading and Math Achievement of Their Children". McKenney presents two hypotheses: (1) given the training program of parents, the experimental groups would show a significant increase in achievement over the students in the control group, and (2) parents in the experimental group would evidence a more positive attitude toward school. Both hypotheses were accepted with significance at the .001 level. This thesis which emphasizes teaching parents tutoring skills to enable them to raise their children's academic achievement in reading and math, should be of interest to parents, teachers, researchers, evaluators, and policy-makers.

An exception to including materials written prior to 1970 is the Overview and Analysis of School Mathematics Grades K-12, published by the Conference Board on Math and Sciences; the material presents a summary and analysis of math curricular reform during 1955-1975. The reason for inclusion is that such a summary and analysis may be useful in presenting a historical perspective which in turn could be useful for planning purposes.

The Ohio State University's Center for Science and Math Education series "Investigations in Math Education" has included editing work by Allan R. Osborne. One of those works, "Investigations in Math Education, Volume 8, Number 2", discussed the extension and validation of Piagetian theories, reasoning abilities and math concepts. The report seems useful primarily to those who are interested in math education research. An earlier issue of the same periodical, volume 8, number 1, includes an analysis of research related to mathematics; specifically, logical thinking, inference, proof, and problem solving. In addition, the periodical includes discussions of measurement of students at various stages of cognitive development and math teaching and teacher effectiveness.

Osborne's "Investigations in Math Education, Volume 8, Number 3", attempts to present a review and analysis of the national longitudinal study of math abilities reports. It reports on achievement of students at various grade levels, non-intellective correlates of under and overachievements, correlates of attitudes toward math, teacher effectiveness, and characteristics of problem solving.

Perhaps among the most useful to teachers and curriculum planners would be Charlotte W. Jurge and others, "Math for Young Children: A Summary of Research and Related Literature", which presents an annotated list of 48 math teaching research reports. Among the topics included in the booklet are (1) growth and development of children, (2) development of math thought in children, (3) mathematical content appropriate for young children, (4) strategies of teaching mathematical concepts to young children, and (5) assessment and evaluation of mathematical learning.

A bibliography about self-paced instruction which may be useful to curriculum planners, researchers and teachers is Harold L. Schoen's and Gloria L. Drapac's "An Annotated Bibliography on Research on Self-Paced Mathematics Instruction: 1965-1976". Again, this is an exception to the selection criteria; nevertheless, it seems reasonable to include this article in this analysis. The bibliography has three topical areas: (1) effectiveness of self-paced programs compared with traditional programs, (2) analysis of specific programs, and (3) research studies related to that topic.

A paper which was written in 1975 but certainly seems timely is edited by Elizabeth Fennema and entitled "Math Learning: What Research Says about Sex Differences". It reports the results of contests to identify junior high school students precocious in math ability and subsequent instructional experiments aimed at improving the math achievement of able girls.

Another book which seems useful for teachers, math education researchers and developers is edited by Thomas J.Cooney and David Bradbard entitled, "Teaching Strategies: Papers From a Research Workshop". The purpose of the book is to present research on strategies for teaching mathematics and includes four topical areas. Those topical areas are as follows: (1) an overview of review of research on teaching strategies, (2) major strategies from historical perspectives, (3) role of theory and development in teaching strategies, (4) teacher training materials. Math researcers and teachers interested in Piaget's work will find Myra F. Rofskopf's Piagetean Cognitive Development and Research to be interesting. The book explores Piaget's development theory and descriptions of studies concerned with the development and growth of mathematical concepts of proof, logical operations and functions.

Another paper which has been considered for inclusion because of its historical perspective is Lewis R. Aiken, Jr.'s "Language Factors in Learning Mathematics"; however, its 47 pages is too brief to adequately review the literature from 1930 to the present. The same can be said about SMEAC's newsletter "Math Education, Volume 4, Number 2", which attempts to present research on secondary school math published in 1971. It includes research on behavioral objectives and individualized procedures; however, six pages appears to be inadequate for the amount of time covered and the topics.

IMPLICATIONS FOR FURTHER ACTIVITY

The implications for dissemination to user populations are somewhat limited. Given the material identified and perused in the above analysis, it seems reasonable to consider the following:

1. A renewal of the SMEAC newsletters, if further efforts indicate no other publication has replaced them.

2. A series of conferences designed to acquaint math teachers and curriculum leaders with math research findings. Such conferences should focus on the math analysis work completed by OSU's Higgins, et al.

3. Additional research or research activity might ensue which would look at links between math education and tangential but extremely significant work such as Rofskopf's Piaget work. Another example might be Fennema's work on math learning and sex differences.

FINAL ANALYSIS AND IMPLICATIONS OF READING RESEARCH SYNTHESIS

The category of reading encompasses a composite of a vast array of specific considerations, many of which are included in the following synthesis. The materials which have been selected are divided into two general categories. The first involves such components as programmed reading materials, reading readiness, methods, materials and instruction involved in the reading process, comprehension and motivation, and reading problems and the evaluative processes involved in reading.

The second category deals specifically with the concept of research involved in reading and shall include such topics as usable research for the educator, research priorities in reading, and summaries of past research on this topic.

In an attempt to select materials which would be most useful to administrators and educators, the search was conducted manually. Assorted citations used in this synthesis are from the ERIC Resources in Education and Current Index to Journals in Education.

Limitations of the Search

The search strategy included several of the following considerations.

1. Research materials selected were to be usable at the elementary and secondary levels.

2. The materials search was to be limited to research materials produced and/or used in the United States.

3. Only material in the areas of research which have been produced since 1970 were to be considered.

4. There was a limitation to research synthesis and/or analyses and interpretations.

Programmed Reading Materials

A booklet by Carl B. Smith and others entitled "Treating Reading Disabilities" discusses several methods of handling reading disability within a school setting. Among these are programmed tutoring policies, remedial work with students suffering from reading disabilities, and compensatory programs involving these students. A main emphasis of this booklet is involved in a discussion of the procedures for establishing programs which would most benefit reading disabled students. Included are several diagnostic and correctional procedures, and a list of references concerning general interpretation of reading disabilities. This material is primarily intended for a reading staff within the school, and also for others within the school system who are planning to undertake a reading disability improvement program. An especially useful section of this booklet deals with a section discussing procedures involved with the implementation of such programs in the school.

Another research article which may be useful in this section is authored by Marshall S. Smith and is entitled "The Essential Skills Program: Brief History and Future Plans". In this article, much emphasis is placed on reading skills, reading instruction, and reading programs. The American Education Research Association has produced this article specifically to be used by teachers of reading with primary emphasis on the essential skills program.

Reading Readiness

An article most appropriately applicable to the concept of readiness is by Nila Banton Smith and others entitled "Readiness for Reading and Related Language Arts: A Digest of Current Research". This paper was presented at the National Council of Teachers of English, and deals with readiness in the categories of reading and language arts. It covers various components such as readiness for reading, readiness for oral and written language, also a readiness for spelling and vocabulary. A main purpose of this article is to deal with applying readiness concepts towards growth of reading. Teachers of reading and language arts skills would most benefit from this research.

William E. Blanton has authored two articles in the area of readiness. The first, "A Teacher's Guide to Pre-School Reading Instruction", is concerned with providing assistance to pre-school teachers. Three main concerns involving reading and readiness are dealt with in this paper. The first, is when reading instruction should begin. Another, is how traditional kindergarten experience affects reading readiness. And finally, comments on whether or not children with emotional problems become adversely affected in their attitudes toward reading if formal reading instruction begins at the pre-school level. The second of Blanton's articles is entitled "Pre-School Reading Instruction: Information for the Administrator". One main emphasis of this section provides assistance to school administrators who are exploring the possibilities of pre-school reading instruction, and also covered within this article are several questions such as when to begin pre-school reading instruction, and steps the administrator should take in implementing change in a pre-school reading construction plan.

Methods, Materials and Instruction

There are several applicable and beneficial research materials listed under this category. Among them is a paper by Peter Desberg and Betty Berdiansky, entitled "Word Attack Skills: Review of Literature". Included in this article is a list of several alternatives to the instruction of reading. Although specifically dealing with word-attack skills, this article also relates information on the basal method, the linguistic method, the phoenetic-linguistic method, and also on the ITA system of learning to read. In total, a descripton of eleven major reading systems is included. Also included is a review of current word attack research, and a general orientation to problems and strategies for attacking these problems. Although the language included in this article is somewhat technical, classroom teachers may find it to be beneficial. Researchers would especially find the conceptualizations used within this article useful and the critiques which are included to be a substantial component. The review and discussion of various methods of reading instruction is quite extensive as is the accompanying bibliography.

Readings on Reading Instruction is authored by Albert J. Harris, and includes material which is primarily intended for reading teachers and teachers of educational disadvantaged. This book contains an assortment of articles related to reading instruction.

William D. Sheldon is the author of "What Research Tells Us About the Teaching of Reading". This material, produced through the International Reading Association, is a compelation of two dissertations and 37 journal articles of research studies conducted in reading. It includes a general review of the literature on such components as beginning reading, early childhood education, reading achievement, programs, readiness, research and reading testing. It is primarily intended for reading teachers within the classroom and furthermore, it discusses at length: pre-reading programs, beginning reading instruction, programs in grouping practices, vocabulary and word analysis and reading achievement. The primary purpose of this work is methods of instruction involved in the reading process.

Marshall S. Smith, in his work entitled "Modeling the Reading Process: A Conference on Studies in Reading", lists references and information developed from a panel report on reading research done through the Department of Health, Education and Welfare. Included are developmental models for reading process, and it is specifically designed to benefit the classroom reading teacher, with such topics as word recognition, development of reading ability, eye movement guidance, and complex reading tasks.

A 233-item bibliography which deals with the presentation of relevant research addressing the primary sub-skills in the word decoding task can be found in the work done by Sherry Young Kuchenbecker. This article, entitled "Component Skills and Word Decoding Tasks for the Beginning Reader: An Annotated Cross-Referenced Bibliography", is most beneficial in providing special emphasis on annotated bibliographies involved with beginning reading, primary education, and reading research. The reading teacher within the classroom situation would find this reading research most beneficial in areas of "sub-skills in decoding" involved in the reading process.

Barbara R. Foorman has authored a 27-page narrative paper which is very informative to the reader, dealing with certain content areas as miscue analysis and cognitive development theory. Her work, entitled "A Look At Reading Diary Studies: The State of the Art and Implications From Cognitive Developmental Theory", was published by the Special Invitational Interdisciplinary Seminar on Piagetean Theory and its Implications for the Helping Professions. It deals most specifically with reading, but a sub-heading on reading diary study methods is developed to assist reading teachers by exposing them to the reading diary method of helping students to read. This is one of a variety of methods involved in the process of the instruction of reading.

Martha J. Maxwell in an article entitled "Results of the Survey of the Literature on Methods and Materials in Reading" gives special emphasis on basic reading, beginning reading, reading instruction, educational research, reading research, research needs and research reviews. This material, compiled to be of benefit to reading teachers and researchers, is a survey of the available literature on methods and materials of reading. Included are 244 studies of various methods and materials involved in the reading process.

Comprehension and Motivation

Two articles describing reading comprehension are authored by Grayce A. Ransom and Stephen A. Paulak. The article by Ransom entitled "Processes in Reading Comprehension" is supported by the International Reading Association and was presented at the IRA World Congress on Reading. Although concerning reading comprehension, the sub-category in this article is related to theoretical foundations. Such topics as spiral reading curriculum and background of research design are included also. Dealing with cognitive processes, curriculum development, elementary education in reading, reading processes, and the review of the research, the author has approached teachers of reading through her paper, which also includes a bibliography and assorted conclusions and recommendations involved with reading process and the art of comprehension. The Paulak article, "Reading Comprehension, A Critical Analysis of Selected Factors Affecting Comprehension", utilizes a concise report of doctoral dissertations of reading comprehension from 1948 through 1972. Also included is a review of assorted factors affecting reading comprehension.

Learning and Motivation in Early Reading, Panel 8, Conference on Studies in Reading, by Marshall S. Smith, was sponsored by NIE and deals with motivation involved in the reading process. Among selected topics included are early reading, listening skills, reading research, reading skills, and teaching methods. Primarily designed for teaching and reading teachers, this 48-page conference report paper deals with the problem of a conference panel in identifying, developing and comparing means by which children's motivation to learn basic reading skills may be strengthened and maintained. Also by Smith, Attention and Motivation, Panel 3, Conference on Studies in Reading, again supported by NIE deals with attention and motivation in reading. Among topics included are classroom environment, reading research, ability, processes, self-concept motivation, and teacher improvement. Reading teachers could most benefit through the use of this research in exploring attentional and motivational systems and the factors in classroom management that influence them. This is in the format of a 143-page paper of conference reports.

Reading Problems and Evaluation

Within this category are three articles authored by Carl B. Smith and others. The first, "Reading Difficulties: Reading and the Home Environment, The Principal's Responsibility" involves the discussion of reading disability and assorted programs to overcome environmental deficiences. It concerns itself with teacher improvement in the areas of inservice training, creation of new materials, extension of the school year, involving the community and a multiple listing of other approaches. This booklet, although primarily intended for principals, would be of use to reading teachers, also. With its emphasis on application of research, it discusses a synthesis of causes of problems, case studies of successful programs, a list of references and a step by step guide to implementation of successful programs. Another article by Smith,"Correcting Reading Problems in the Classroom", sponsored by the Bureau of Research. U.S. Office of Education, deals with reading difficulties also. Included is a discussion of the extent of the problem of reading difficulties, a diagnosis of this problem and possible corrections of the problem including a look at assorted successful programs. It is designed specifically for classroom teachers. The paper proceeds from a definition of the problem to suggestions for dealing with the problem in the classroom with practical suggestions for application of research by the classroom teacher. Included is a prep kit with a monograph synthesizing research, a list of references, techniques for classroom diagnosis of reading problems, individualizing reading instruction information, and current reading research for the teacher. The third article by Smith, "Establishing Reading Clinics: The Administrator's Role", has also been sponsored by the Bureau of Research, U.S. Office of Education. Again, reading difficulties is the main concern, and in this discussion, assorted types of reading clinics are evaluated. The university clinic, the public school clinic and mobile clinics are among the many. This article specifically is designed for superintendents and other top level administrators who look at treatment of reading difficulties throughout the school system. Various steps to be taken in planning and implementing reading clinics are examined in this article. Also, there is an examination of problems with the various approaches to working with reading clinics. There is a particular focus on the problem of reading difficulties and also presented is a non-technical synthesis of research which offers practical suggestions to the working administrator.

Tests and Measurements is a sub-category of an article entitled "Reading: What Can Be Measured", by Roger Farr. In this article there is an extensive discussion of standardized tests, informal measurements, psychological measurements, and physiological measurements which are used in assessing achievement in reading. There are several social, technical and political implications included in this discussion. The main emphasis, or purpose, of this article was to present problems in assessment, methods of assessment, guides to tests, test reviews and published research literature in reading. Classroom teachers would find guidelines for classroom application of research particularly useful as well as discussion of problems and methods, as well as guides included. As a state of the art review, this appears highly useful, particularly as the author focuses on suggestions for application of the research results.

In yet another article on reading, Marshall S. Smith discusses the cultural aspects of reading in the article "Reading Strategies for Different Cultural and Linguistic Groups". A discussion on communication skills, dialects, reading ability, minorities, reading instruction, reading research, and reading skills is quite extensive. It is most beneficial for teachers of reading who are involved with the instruction of reading to bilingual students. This

75-page conference report responds to the development of means such as strategies, materials and techniques by which minority group children can learn to read and communicate effectively in English as well as in the language or dialect of their respective group.

Usable Research for the Educator

Concerning reading research at the secondary level, two articles by M. Gunn are quite effective in providing a description on reading research which has been conducted. The first article, "What We Know About High School Reading" is sponsored by the National Council for Teachers of English. This article, attending to research in secondary reading, dispenses information in regard to teaching, techniques, and instructional materials. It helps to answer teachers' practical questions about the teaching of reading at the secondary level. Selected subject areas would include successful reading programs, practices in teaching reading, reading and high school students, and materials for teaching reading. This 51-page document in chapter sequence is very informative and is especially designed to meet the needs of teachers' questions.

The other article by Gunn, "What Do We Know About High School Reading, What Does Research in Reading Reveal", was also sponsored by the National Conference on Research in English. The main emphasis of this paper is English instruction, reading achievement, diagnosis, difficulty, improvement, instruction. interests, levels, materials, programs, research, reviews, skills; all related to reading at the secondary level. Primarily developed for reading researchers, this 112-page paper discusses reading instruction, variations in reading growth, reading attitude understanding, a discussion of reading programs, practices in the teaching of reading, content reading and its implications, and teaching materials. Also, methods of evaluating reading growth is a major component of this article.

Marshall S. Smith in an article entitled "Applications of Existing Reading Comprehension Research" has approached the sub-category of research application. The review of research included in this 32-page paper is intended to maximize the relevance of instructional practice through teaching methods, teaching models and teaching theories. A main emphasis of this work is to bring basic and applied research on reading comprehension to a level which will enhance the theory and practice of reading. It is developed primarily for reading instructors at the secondary level.

"Reading Research: The State of the Art as It Reaches the Classroom" is an article authored by Beverly McLean, sponsored by the International Reading Association. This paper, concerned with the history of reading research, tends to give an emphasis on reading instruction,materials, research, and teaching methods. It is developed for the classroom teacher, and includes an annotated bibliography. One condition of this article is the presentation of the history of reading research to the classroom teacher and an attempt is made to provide the classroom teacher with a better understanding of the implications of the completed research.

George H. McNinch has authored a work entitled "Reading: Convention and Inquiry". This article of research discusses literature reviews on reading improvement, instruction, interests, materials, programs, research tests, and also upon teacher education. It is designed to be used by reading teachers within the classroom and is in the format of a 310-page paper developed as a result of a collection of papers presented at the 1974 annual meeting of the National Reading Conference. The work is in the form of essays divided into six major sections; Research Review, College and Adult Programs, Teachers Education Programs and Practices, Test Materials, and Research and Theory Involved in Reading.

"The Literature of Research and Reading With Emphasis on Models: Final Report" was compiled by Frederick B. Davis. It includes 16 papers covering three general areas. Included are Reading Process, Language Development in Reading, and Learning to Read. This is a result of a massive search of the literature in the area of reading to find and synthesize all of the literature pertaining to models of reading development and process. This most specifically would fit under the category of usable research for the educator, as it is an admirable collection of literature on research in the area of reading.

Basic reading, beginning reading, ITA, primary education, reading development and reading instruction are among the many emphases in the paper by Sheralyn S. Goldbecker entitled "Reading: Instructional Approaches, What Research Says to the Teacher". This 34-page booklet on reading research was designed with the primary intention to assist teachers of reading. Included is a discussion of instructional approaches of reading and an offering of several definitions of reading. Also, a discussion of teaching techniques including early methods, the basal approach and recent trends may be found in this article.

Research Priorities

Reading instructors could most benefit from an article by Marshall S. Smith entitled "Essential Skills and Skill Hierarchies in Reading". This 37-page panel report deals with reading research, research methodology and research needs, and is intended to identify and validate behaviors essential or supportive to the acquisition of competent reading behavior.

Julie Jensen, Charles Cooper, and William Fagen have co-authored an article entitled "Measures for Research and Evaluation in the English Language Arts". Research and evaluation in the areas of language arts and reading are the main subjects. Language development, listening, literature, reading, ESL, teacher competency and writing are among selected categories included. Primarily designed for teachers and researchers, this 214-page book has been compiled for research organizations and implementation of research.

Priorities on Research on Reading by Robert Calfee of Stanford approaches the priorities involved with research of reading. Included are basic skills, identification, critical program factors, development of test instruments, and anlysis of human resource availability. Researchers would benefit from this article which is short (19 pages), by learning the step by step process development suggested by Calfee in designing reading research.

William D. Page has authored an article entitled "Help for the Reading Teacher, New Directions in Research". Reading people at both elementary and secondary levels would find this book informative in its discussion of cloze procedures, content reading, reading diagnosis and reading research.

Roger Farr, in an article designed for reading researchers, discusses reading research and criteria, research design, methodology, needs and problems. The article, entitled "Improving Reading Research", was sponsored by the International Reading Association for Research Improvement. This 126-page document includes papers presented at the pre-convention institute on research of the annual meeting of International Reading Association. Several procedural steps used in research are included. Among these are: identifying and planning reading research, design problems in reading research, measurement issues in reading research, conducting longitudinal research in reading, interpreting the findings, linguistics in reading research, linguistically sound research in reading, social aspects of working with the schools, and reporting,which is the last major step in the research act.

Summaries of Research

Samual Weintraub is responsible for a major contribution to the area of summaries of research. Four articles are included in this synthesis which he authored. The first, Summary of Investigation Relating to Reading, was sponsored by the International Reading Association. Covered within this article are literature reviews, discussions on reading difficulty, reading instruction, reading research, reading skills, and remedial reading. This would be most beneficial to reading teachers and reading researchers. It is a collection of 558 reports of reading research published between July 1, 1974 and June 30, 1975. It is very current and extremely usable. This summary of reading research has been developed and is in the form of a 350-page book. Another article by Weintraub, entitled Summary of Investigations Relating to Research, is a 273-page book including 369 reports of reading research. Several alternatives discussed within this article are the physiology and psychology of reading, teaching of reading, reading and language ability. Intended users are researchers and reading personnel within the school setting. The two remaining articles by Samual Weintraub both entitled Summary of Investigations Relating to Reading are basically distinguishable only because of the date. The first discusses reading investigations from July 1, 1971 to June 30, 1972, and the second discussed from July 1, 1973, to June 30, 1974. The first deals with an annual summary of case studies and includes descriptive analysis of research and the second is a 431-page report of reading research which was published during the time span listed. The five major areas of subject categorizations are: literature review, reading difficulty, instruction, research skills, and teacher education.

Marshall S. Smith, in an article entitled "Planning Research on Learning: An Example in Reading", discusses reading research quite extensively. Through an inclusion of educational development concepts, government's role, reading research, research methodology and research need, Smith approaches the teachers of reading through his paper which was presented at an annual meeting of the AERA.

Norma J. Livo has authored an article entitled "Reading Readiness: Research in Review". Most specifically dealing with research, this article is intended for reading teachers and researchers and includes such categories as beginning reading, bibliographies, literature reviews, reading readiness, reading readiness tests, and research reviews. This paper reviews studies involving the more commonly measured reading readiness factors, and also discusses some unique studies and projects what some needs of future research should be.

"A Critical Review of the Information Base for Current Assumptions Regarding the Status of Instruction and Achievement in Reading in the United States", by Patricia Elias, discusses reading research as it relates to reading teachers and researchers. Included is a description of research literature review, reading achievement, reading instruction, reading processes and research design. A special inclusion in this article is the controversy of literature reports, inequities if teacher preparation, inadequacies of research design and description, and assorted suggestions for reading improvement.

Richard L. Venezky has authored an article entitled "A History Of Research on Reading, Theoretical Paper No. 56". Sponsored by the Department of Health, Education and Welfare, this article on research in reading points to such considerations as learning processes, literature reviews, reading instruction, reading processes, research reviews and is intended primarily for reading researchers and teachers. This 33-page report was sponsored by the University of Wisconsin Research and Development Center for Cognitive Learning. A discussion within this article involves the control of eye movements, strategies involved in word recognition, the amount of types of overlapping processes, the role of subvocalization, the nature of the eye-voice span, and optimal methods of reading instruction. These characteristics are covered as they relate to reading research.

The final article in this category is by Nila Banton Smith entitled "Reading Research: Notable Findings and Urgent Needs". The author approaches research and reading dialects, comprehension development, improvement instruction, programs, and skills. This article is most beneficial to reading researchers.

Summary and Implications

With regard to the selected categories chosen for this synthesis and the amount of available information, it seems that there is not a gap of information in this area. Numerous articles have been cited with reference to each individual component in the area of reading and research. The materials offer assorted and varied implications and all cited material is applicable to the section for which it was intended.

The collected materials, as they are current and responsive to the purposes of this synthesis, should be made available to interested administrators, teachers, researchers, etc., through an appropriate dissemination network. Useful material of this type can and should enhance the endeavors of individuals involved in reading and reading research.

FINAL ANALYSIS AND IMPLICATIONS
COMPETENCY-BASED EDUCATION RESEARCH SYNTHESES

Competency-based education as a public school movement is a recent thrust although the concept has been used for a longer time in teacher education and in a number of other career education areas. The recency of the movement had considerable influence on the availability of materials in the search CEPM conducted.

The Search

Several approaches were utilized to identify references to materials for consideration in the choice of items for the annotated bibliography:

1. A manual ERIC search of both Resources in Education and Current Index to Journals in Education. A manual search was chosen as it allowed for some check on the usefulness of references as the search was being conducted.

2. An on-line computer search of Library of Congress references. No items were identified in this search.

3. Consultation with a CEPM Research Associate working on a CBE project.

4. Follow-up of references listed in other references.

Limitations of the Search

Parameters for the search strategy included:

1. Limitation on level of education to the elementary and secondary levels. This eliminated Competency-Based Teacher Education materials and a large portion of the Career Education materials.

2. Limitation to research syntheses and/or analyses and interpretations. This eliminated nearly all of the remaining references as little research has been conducted thus far on elementary and secondary CBE, let alone synthesis or analysis of this research.

3. Limitation of publication date of 1970 or later. This had no effect as all of possible materials were within this date.

Analysis of Strengths, Weaknesses and Gaps

The area of CBE represents a nearly total gap in available research syntheses and interpretations. Even the four items which have been included in the annotated bibliography do not actually meet the criteria established in all ways. None of the four represents a synthesis and interpretation that clearly evaluates alternatives; in fact, the research basis is not always clear.

None of the entries represent the kind of synthesis document we defined as highly useful in our preliminary analysis. We would expect these entries to be weeded out as more useful synthesis documents become available. However, these entries are included at this time to provide information in an area of current need. These may not be the best documents for this purpose, but they are among the very limited number of researched-based documents.

Implications of the Analysis for the RDX

The lack of research in this area of need is certianly feedforward information the system can relay to educational researchers and to funding sources. Some information on needed research is found in the Hall document.

For the present time, a need for information and a gap in availability of such information indicates that some measures will need to be taken until sufficient research is available to synthesize and interpret. Three suggested approaches for this interim period follow:

1. Synthesis of research from related areas, such as competency-based teacher education, or career education. Interpretations applicable to the broader focus of CBE and to the elementary and secondary educational levels would need to be made. Herein lies the potential difficulty of this approach. There is no evidence that such generalizations are valid, a point that has been raised by some recent writers.

   Some attempt to carry out this approach with evidence from CBTE is found in this reference: Gene E. Hall and Howard L. Jones. Competency-Based Education: A Process for the Improvement of Education. Although much of the book deals directly with CBTE, the authors indicate they believe the experience would be more broadly useful. The section on identifying competencies, goals and objectives would appear to be generally useful.

2. Dividing CBE into apparant components, such as accountability, behavioral objectives, mastery learning. Again there is no empirical evidence that this approach is valid.

   One such reference is the following: Philippe C. Duchastel and Paul F. Merrill, "The Effects of Behavioral Objectives on Learning: A Review of Empirical Studies", Review of Educational Research, 43:53-69 Fall, 1973

   This review of empirical research addresses three main instructional functions of behavioral objectives: (1) direction for teaching and curriculum development, (2) guidance for evaluation, (3) facilitation of learning. The kinds of variables used were specificity of objectives, type of learning task, and student characteristics. Frequently-used dependent measures were learning (immediate post-test), retention (delayed post-test), time necessary to reach mastery of the task,and student attitude.

   Research results were inconsistent. This held when factors that could have accounted for the discrepancy were considered: topic or subject matter, level of schooling, and time involved in instruction. The authors caution that the review was concerned with only the issue of providing students with objectives; it should not be used to influence or advocate a position concerning the value of behavioral objectives in providng direction for teaching and guidance in evaluation.

3. Utilizing non-research based materials. The vast majority of available references in CBE are of this kind. A number of these appear to be logical and rational theory. The difficulty here is that theory is not always upheld by research.

Two recent articles provide one of the best analytic approaches to CBE:

1. William G. Spady. "Competency-Based Education: A Bandwagon in Search of a Definition", Educational Researcher, 6:1, January, 1977. This article provides an operational definition of CBE that is largely prescriptive in nature and reflects a consensus of experts in the field. Four defining characteristics are provided through discussions of (1) outcomes, (2) time, (3) instruction, (4) measurement, (5) certification, and (6) program adaptability. Briefly reflected against this definition are considerations of some state programs in CBE.

2. William G. Spady and Douglas E. Mitchell, "Competency-Based Education: Organization Issues and Implications", Educational Researcher, 6:2, February, 1977. This article discusses some of the various approaches to CBE and provides two frameworks in which to consider these approaches and to compare role-based and goal-based approaches to education. Some implications for the organizational operations and for administration are considered as indicated on the implications matrix:

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	Competency Outcome Expectations	XX			XX	XX
	Life-Role Domains	XX			XX	XX

Another reference provides a number of articles to assist administrators in California and may be helpful in other states where CBE has been, or may be, mandated:

Thrust for Educational Leadership, published by Association of California School Administrators, devoted the November 1975 issue to Competency-Based Education. The articles include:

James E. Eisele and Paul M. Halverson, "Assumption Underlying Competency-Based Education",

Morris R. Lewenstein, "CBE--Commitment Is Not Enough",

Keith Acheson, "Developing Competency-Based Graduation Requirements: Tips and Guidelines for School Districts",

Rosemary G. Messick, "Competency-Based Education: In-Service Implications"

In summary, any of these alternative approaches to providing needed information in this gap area must be used judiciously while at the same time research is encouraged to fill the gap and provide the required information.

ANNOTATED BIBLIOGRAPHY

BASIC SKILLS: MATHEMATICS

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:
Aiken, Lewis R., Jr.

TITLE:
Longitudinal Factors in Learning Math

INSTITUTION:
ERIC Information Analysis Center for Science, Math & Environmental Education, Columbus, OH

AVAILABILITY:
1972

Identification Number
ED 068 340

Publisher/Source:
EDRS

Cost
.65 MF HC 3.29

Capsule Analysis

Issue Category math education

Sub-category language

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:
Relationship of verbal factors to math achievement

INTENDED USERS:
math teachers, researchers

CONTENTS/SUBJECT AREAS:

See emphasis

include bibliography

FORMAT:

paper--47 pages

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Too brief to adequately review literature from 1930-present

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Cooney, Thomas J., ed., David Brabbard, Ed.

TITLE: Teaching Strategies: Papers from Research Workshops

INSTITUTION: Ohio State University

AVAILABILITY: May 1976

Identification Number ED 123 132

Publisher/Source: Information Reference Center, The Ohio State University, 1200 Chambers Road, Columbus, OH 43212

Cost $4.00

Capsule Analysis

Issue Category math education

Sub-category teaching strategies

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

presentation of research on strategies for teaching mathematics

INTENDED USERS:

math teachers, researchers

CONTENTS/SUBJECT AREAS:

1. overview of research on teaching strategies
2. major strategies from historical perspective
3. role of theory in development of teaching strategies
4. teacher training materials

FORMAT:

book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

useful for teachers & math education researchers and developers

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Fennema, Elizabeth, ed.

TITLE: Math Learning: What Research Says About Sex Differences
Math Education Reports

INSTITUTION: Ohio State University

AVAILABILITY: 1975

Identification Number ED 128 195

Publisher/Source: Information Reference Center, The Ohio State University, 1200 Chamber Road, Columbus, OH 43212

Cost $1.75

Capsule Analysis

Issue Category math education

Sub-category sex differences

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

sex differences & math education

INTENDED USERS:

math teachers, researchers

CONTENTS/SUBJECT AREAS:

results of contests to identify jr. high school students precocious in math ability & subsequent instructional experiments aimed at improving the math achievement of able girls.

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Fennema, Elizabeth

TITLE: The Sexes: A Review of Math, Learning

INSTITUTION: EDRS

AVAILABILITY:
1973
Identification Number
ED 076 392
Publisher/Source:
EDRS MF .65 HC 3.29
Cost
3.29

Capsule Analysis

Issue Category math education

Sub-category sex differences

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

math teachers, researchers re: math & sex differences

CONTENTS/SUBJECT AREAS:

Literature review

FORMAT:

paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L.

TITLE: Research Reporting Sections, Annual Meeting of National Council of Teachers of Math, 53rd, Denver, Colorado, April 23-26, 1975

INSTITUTION: OSU, Center for Science & Math Education

AVAILABILITY: April 1975

Identification Number ED 104 666

Publisher/Source: Ohio State University, Center for Science & Math Education, 224 Ayes Hall, Columbus, OH 43210

Cost $2.00

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Report on content of Annual Meeting of National Council of Teachers of Math, 1975

INTENDED USERS:

NCTM members, math teachers, professors, researchers in math area

CONTENTS/SUBJECT AREAS:

instructional strategies, sequences, and hierarchical analysis of learning; teacher attitudes toward math & characteristics of high ability mathematics students

FORMAT:

abstracts of 33 papers

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

none

EVALUATIVE INFORMATION:

none

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education, volume 6, number 3

INSTITUTION: OSU, Center for Science and Math Education

AVAILABILITY:

Identification Number ED 083 043

Publisher/Source: Ohio State University, Center for Science & Math Education, 244 Ayes Hall, Columbus, OH 43210

Cost Subscription $6.00/year, $1.75 single copy

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Present abstracts and analyses of 14 math education research

INTENDED USERS:

Researchers, developers,teachers, curriculum planners

CONTENTS/SUBJECT AREAS:

1. Variables affecting student achievement
2. Teaching abstract concepts to young children

FORMAT:

Journal

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Useful for research in selected areas

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education, volume 7, number 2

INSTITUTION: Ohio State University, Center for Science & Math Education,
244 Ayes Hall, Columbus, Ohio 43210

AVAILABILITY:

Identification Number ED 114 288

Publisher/Source Ohio State University, Center for Science & Math Education, 244 Ayes Hall, Columbus OH 43210

Cost $2.10 single copy ($6.00 supscription)

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

analysis of math education research

INTENDED USERS:

math teachers, researchers, evaluators

CONTENTS/SUBJECT AREAS:

- Concept formation
- Task analysis
- Interaction of personality variables with decision making and performance
- Testing
- Student evaluation of teaching

FORMAT:

Journal

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Interest in having research analysis rather than specific research reports

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L. ed.

TITLE: Investigations in Math Education, volume 7, number 3

INSTITUTION:

AVAILABILITY:

Identification Number: ED 116 964

Publisher/Source: Ohio State University, Center for Science & Math Education, 244 Ayes Hall, Columbus, OH 43210

Cost
$2.10 copy
$6.00 subscription

Capsule Analysis

Issue Category: math education

Sub-category:

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

analysis of math ed. research

INTENDED USERS:

math teachers, researchers

CONTENTS/SUBJECT AREAS:

1. development of children's understanding of diverse math & logical concepts
2. instructional methods
3. attitudes towart math

FORMAT:

journal

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Preference for and need for synthesis rather than entire research report

EVALUATIVE INFORMATION:

Good, useful

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education, volume 6, number 4

INSTITUTION: OSU, Center for Science & Math Education

AVAILABILITY:

Identification Number 088 708

Publisher/Source: OSU, Center for Science & Math Education,
244 Ayes Hall, Columbus, OH 43210

Cost $6.00/year subscription, $1.75 single copy

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

analyses of research

INTENDED USERS:

CONTENTS/SUBJECT AREAS:

1. concept attainment
2. measurement of cognitive abilities
3. evaluation techniques for textbooks

FORMAT:

paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

useful for researchers & math professors

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Research Reporting Sections, Annual Meeting of NCTM 1974

INSTITUTION: Ohio State University

AVAILABILITY: Ap. 1974

Identification Number ED088782

Publisher/Source: Center for Science and math education, OSU,
244 Ayes Hall, Columbus, OH 43210

Cost EDRS MF .75 HC 6.60

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

compilation of abstracts of research papers

INTENDED USERS:

math teachers, curr. planners

CONTENTS/SUBJECT AREAS:

method of instruction
  - college math
  - secondary math
  - elementary math

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L. Comp. & Others

TITLE: Math Education: A Bibleography of Abstracts from Research in Education from 1966-1972

INSTITUTION:

AVAILABILITY: 1973

Identification Number ED 093714

Publisher/Source: Ed. Associates, Inc., PO Box 441, Worthington, Ohio

Cost $18.00

Capsule Analysis

Issue Category Math education

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

Teachers, researchers, cur. developers, libraries, administrators and others concerned with math education

CONTENTS/SUBJECT AREAS:

Instructional materials, res. reports, teaching guides and other items

FORMAT:

Book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Seems useful for int. ended group

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education: Expanded Abstracts & Critical Analyses of Recent Research, volume 5, number 4

INSTITUTION:

AVAILABILITY: Ohio State University, Columbus, Ohio, Center for Science & Math Education

Identification Number ED071880

Publisher/Source: OSU, Center for Science and Math Education, 248 Ayes Hall, Col., O. 43210 $6.00/year, 1.75 single copy

Cost .65 MF HC 3.29

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

abstracts & analysis

INTENDED USERS:

teachers, researchers

CONTENTS/SUBJECT AREAS:

Evaluating methods of instruction
Evaluating achievement & attitudes

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Res. Reporting Sections, National Council of Teachers of Math, 51st Annual Meeting

INSTITUTION: Center for Science & Math Ed., OSU

AVAILABILITY: 1973

Identification Number ED076387

Publisher/Source: Center for Science and Math Education, Ohio State U.
244 Ayes Hall, Columbus, OH 43210

Cost $1.75

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

research paper

INTENDED USERS:

teachers, researchers, cur. planners

CONTENTS/SUBJECT AREAS:

- Method of instruction
- Investigate patterns of learning
- Evaluation of attitudes
- Test construction

FORMAT:

paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in math education, volume 5, number 1

INSTITUTION: OSU, Center for Science & Math education

AVAILABILITY:

Identification Number ED061078

Publisher/Source: Ohio State University,
Center for Science & math education,
248 Ayes Hall, Columbus, OH 43210

Cost $6.00/yr, 1.75 single copy subscription

Capsule Analysis

Issue Category Math education

Sub-category

Information on Implications

Alternatives Addressed		Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

To present abstracts of recent res. in math education.

INTENDED USERS:

Math teachers, researchers, evaluators

CONTENTS/SUBJECT AREAS:

1. Aspects of mathematics learning
2. Math instruction & instructional materials
3. Math achievement and its correlation
4. Teacher ed. and evaluation

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

first in quarterly series

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education, volume 5, number 3

INSTITUTION: Ohio State University, Center for Science & Math Education

AVAILABILITY: 1972

Identification Number ED065337

Publisher/Source: OSU, Center for Science & Math Education
248 Ayes Hall, Columbus, OH 43210

Cost $6.00 sub. yr/1.75 single copy

Capsule Analysis

Issue Category Math education

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Presentation of evaluative studies of large cur. projects or teacher-training programs.

INTENDED USERS:

CONTENTS/SUBJECT AREAS:

Math language, problem solving, sequencing, structural learning, attitudes and calculus with computers

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education, volume 5, number 2

INSTITUTION: OSU, Center for Science & Math Education

AVAILABILITY: 1972

Identification Number ED063161

Publisher/Source: Ohio State University,
Center for Science & Math Education
248 Ayes Hall, Columbus, OH 43210

Cost $6.00/yr, 1.75/sc subscription

Capsule Analysis

Issue Category Math education

Sub-category

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

abstracts of rec. res.

INTENDED USERS:

T., Eval., Curr. D.

CONTENTS/SUBJECT AREAS:

Teaching methods with student T. teacher char.

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Higgins, Jon L., ed.

TITLE: Investigations in Math Education, volume 6, number 1

INSTITUTION: Ohio State University, Center for Science & Math Ed.

AVAILABILITY:

Identification Number ED 076 421

Publisher/Source: Ohio State University, Columbus, OH

Cost $6.00/year, $1.75/single copy

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:
teachers, math researchers

CONTENTS/SUBJECT AREAS:

Evaluating methods of instruction
Evaluating student attitudes & achievement
Evaluating test construction

FORMAT:

paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Similar to ED 071 880

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Jansson, Lars C.

TITLE: The Development of Deductive Reasoning: A Review of the Literature Pre-Version

INSTITUTION: SMEAC

AVAILABILITY: April 1974

Identification Number ED 090 034

Publisher/Source: ERIC/SMEAC Ohio State University, 400 Lincoln Tower, Columbus, OH 43210 (on loan)

Cost MF .75 plus postage (HC not available)

Capsule Analysis

Issue Category math education

Sub-category reasoning

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Review of literature concerning development of deductive reasoning

INTENDED USERS:

Math education professors, math education researchers

CONTENTS/SUBJECT AREAS:

1. Empirical research
    a. assessment studies
    b. critical thinking
    c. instructional studies
    d. logic & proof
2. conceptual framework
3. errors in deductive reasoning
4. state of the art discussion
5. suggestions for future research

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Useful for math education professors and researchers; probably not very readable for math teachers

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Jurge, Charlotte W., and others

TITLE: Math for Young Children: A Survey of Research & Related Literature

INSTITUTION: EDRS

AVAILABILITY: 1975

Identification Number ED 120 026

Publisher/Source: EDRS

Cost MF .83 HC 2.06 plus postage

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Present annotated list of 48 research reports related to math teaching.

INTENDED USERS:

math teachers, curriculum planning

CONTENTS/SUBJECT AREAS:

1. growth & development of children
2. development of math thought in children
3. mathematical content appropriate for young children
4. strategies of teaching mathematical concepts to young children
5. assessment & evaluation of mathematical learning

FORMAT:

booklet

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

none

EVALUATIVE INFORMATION:

use to teacher & curriculum planner

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Nancy Langstaff

TITLE: Teaching in An Open Classroom: Informal Checks, Diagnosis & Learning Strategies for Beginning Reading

INSTITUTION: NAIS

AVAILABILITY:

Identification Number ED 105 417

Publisher/Source: National Association of Independent Schools, 4 Liberty Square, Boston, Mass. 02109

Cost $3.00

Capsule Analysis

Issue Category math education

Sub-category reading

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

Preservice & inservice for teachers & parents interested in open classrooms

CONTENTS/SUBJECT AREAS:

1. Beginning reading in Open classroom
2. Beginning math in open classroom
3. Care studies of five children illustrating how diagnosis & learning strategies were initiated
4. Evaluation procedures for math and reading

FORMAT:

Book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Interest in open classroom

EVALUATIVE INFORMATION:

None

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:
Lesh, Richard A., ed., Bradbard, David A., Ed.

TITLE:
Number & Measurement--Paper from a Research Workshop

INSTITUTION:
Ohio State University

AVAILABILITY:
April 1976

Identification Number
ED 120 027

Publisher/Source:
Information Reference Center, OSU, 1200 Chambers Road, Columbus, OH 43212

Cost
$4.00

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:
number and measurement

INTENDED USERS:
researchers, curriculum leaders

CONTENTS/SUBJECT AREAS:

Relationships between number concepts & measurement

FORMAT:

Report

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

none

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:

TITLE: Math Education, Abstracts & Index from Research in Education from 1966-1972 for Microfiche Library

INSTITUTION: Ohio State University

AVAILABILITY:

Identification Number 089 986

Publisher/Source: OSU, Center for Sciene & Math Education, 244 Ayes Hall, Columbus, OH 43210

Cost
$7.00--free with math education micro library

Capsule Analysis

Issue Category math education

Sub-category research

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

CONTENTS/SUBJECT AREAS:

curriculum guides, reports

FORMAT:

book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Micro library collection access

EVALUATIVE INFORMATION:

Useful only as reference to other works. Unsure of total contents and their usefulness.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: McKinney, John A.

TITLE: The Development & Implementation of a Tutorial Program for Parents to Improve the Reading & Math Achievement of Their Children

INSTITUTION: EDRS

AVAILABILITY:

Identification Number ED 113 703

Publisher/Source: Partial fulfillment for D.Ed. for Nova University

Cost MF. .76 HC 6.97 plus postage

Capsule Analysis

Issue Category math education

Sub-category parental tutoring

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed	XX	XX	XX	XX	XX

MAIN EMPHASIS/PURPOSES:

To teach parents tutoring skills to enable them to raise their children's academic achievement in reading and math

INTENDED USERS:

Parents, teachers, researchers, evaluators, policy makers

CONTENTS/SUBJECT AREAS:

Research on training re: improvement of reading & math achievement of children participating in parent tutoring programs

FORMAT:

(Thesis)

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

None

EVALUATIVE INFORMATION:

H_1 given the teaching program for parents, the experimental group would show a significant increase in achievement over the students in the control groups.

H_2 Parents in the experimental group would evidence a more positive attitude toward the school.

Both H accepted with significance at .001 level.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Osborne, Alan R., ed.

TITLE: Investigations in Math Ed., volume 8, number 3, Special Issue: Critical Analyses of the NLSMA Reports

INSTITUTION: Ohio State University

AVAILABILITY:

Identification Number ED 121 630

Publisher/Source: The Ohio State University, Center for Science & Math Education, 244 Ayes Hall, Columbus OH 43210

Cost $6.00 subscription, $1.75 single copy

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

To present review & analysis of National Longitudinal Study of Math Abilities Reports

INTENDED USERS:

Education researchers, math teachers, curriculum directors

CONTENTS/SUBJECT AREAS:

Reports on achievement of students at various grade levels, non-intellective correlates of under and over achievement, correlates of attitudes toward math, teacher effectiveness, characteristics of problem solvers

FORMAT:

Journal

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

None

EVALUATIVE INFORMATION:

Useful for researchers

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Osborne, Alan R., ed.

TITLE: Investigations in Math Education, vol. 8, no. 1

INSTITUTION: Ohio State University

AVAILABILITY: 1975

Identification Number ED 120 022

Publisher/Source: The Ohio State University, Center for Science & Math Education, 244 Ayes Hall, Columbus, OH 43210

Cost Subscription $6.00, single copy $1.75

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Analysis of research related to math education

INTENDED USERS:

Researchers

CONTENTS/SUBJECT AREAS:

1. Logical thinking, inference, proof, problem solving
2. Measurement of students at various stages of cognitive development
3. Math testing; teacher effectiveness

FORMAT:

Report

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

None

EVALUATIVE INFORMATION:

Useful to researchers

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Osborne, Alan R., ed.

TITLE: Investigations in Math Education, Volume 8, number 2

INSTITUTION: Ohio State University

AVAILABILITY:

Identification Number ED 121 629

Publisher/Source: The Ohio State University, Center for Science & Math Education, 244 Ayes Hall, Columbus, OH 43210

Cost Subscription $6.00 Single copy $1.75

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Research reports related to math education

INTENDED USERS:

Math teachers, researchers

CONTENTS/SUBJECT AREAS:

Extension and validations of Pingetian theories; reasoning abilities and math concepts

FORMAT:

report

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

none

EVALUATIVE INFORMATION:

Useful primarily for those interested in math eduction research

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:

TITLE: Overview and Analysis of School Mathematics, Grades K-12

INSTITUTION:

AVAILABILITY:

Identification Number ED 115 512

Publisher/Source: Conference Board of the Math, Sciences, 2100 Pennsylvania Avenue NW, Suite 832, Washington DC 20037

Cost MF .76 HC 8.24 plus postage (single copies)

Capsule Analysis

Issue Category math

Sub-category

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

To investigate the status of math education at pre-college levels.

INTENDED USERS:

Math researchers, policy makers, testing directors, curriculum & evaluation directors

CONTENTS/SUBJECT AREAS:

Summary & analysis of math curricular reforms during 1955-1975

FORMAT:

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Useful for planning purposes

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Rosskopf, Myron F., ed & others

TITLE: Piagetian Cognitive-Development & Research. Piagetian Cog.-Dev. Research & Math Education, Proceedings of a Conference

INSTITUTION: Columbia University, October 1970

AVAILABILITY: October 1970

Identification Number ED 077 714

Publisher/Source: Columbia University

Cost .65 MF HC not available from EDRS

Capsule Analysis

Issue Category math education research

Sub-category Piaget

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Piaget theories & math education

INTENDED USERS:

teachers, researchers

CONTENTS/SUBJECT AREAS:

Explorations of Piaget's developmental theory and description of studies concerned with the development & growth of the mathematical concepts of proof, logical operations, functions, etc.

FORMAT:

Book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Schoen, Harold L., Gloria L. Drapec

TITLE: An Annotated Bibliography of Research on Self-Paced Mathematics Instruction (1965-1976)

INSTITUTION: EDRS

AVAILABILITY:

Identification Number ED 128 204

Publisher/Source: EDRS 1976

Cost .83 plus postage, HC not available from EDRS

Capsule Analysis

Issue Category math instruction

Sub-category self-paced math instruction

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Self-paced instruction

INTENDED USERS:

curriculum planners, researchers, teachers

CONTENTS/SUBJECT AREAS:

1. effectiveness of self-paced programs compared with traditional programs
2. analysis of specific programs
3. research studies

FORMAT:

Bibliography

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: SMEAC Newsletter, Math Education, volume 3, number 4, volume 5, number 4, 1971-73

TITLE:

INSTITUTION: Ohio State University

AVAILABILITY: 1973

Identification Number ED 095 005

Publisher/Source: ERIC Information Analysis Center for Science, Math & Environmental Education, Columbus, OH

Cost MF .75 HC 3.15 plus postage

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

math teachers, curriculum planners

CONTENTS/SUBJECT AREAS:

Review of research on secondary & elementary math education for 1971-72

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

No future ones will be printed.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:

TITLE: SMEAC Newsletter, Math Education, Volume 4, number 2

INSTITUTION: ERIC Information Analysis Center for Science, Math & Environmental Education, Columbus, OH

AVAILABILITY:

Identification Number ED 067 276

Publisher/Source: EDRS

Cost MF .65 HC 3.29

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

Research on secondary school math published from 1971

INTENDED USERS:

teachers

CONTENTS/SUBJECT AREAS:

Research on behavioral obj., individualized procedures

FORMAT:

newsletter, 6 pages

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

not comprehensive review

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Snydow, Marilyn N. and J.F. Weaver

TITLE: Research on Math Education (K-12) reported in 1973

INSTITUTION: ERIC Information Analysis Center for Science and Math & Environmental Education, Columbus, OH

AVAILABILITY: March1974

Identification Number ED 091 239

Publisher/Source: Ohio State University, Center for Sciene & Math Education, 244 Ayes Hall, Columbus, OH 43210

Cost MF.75 HC 4.20

Capsule Analysis

Issue Category math teaching research

Sub-category

Information on Implications

Alternatives Addressed		Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

Research related to math teacing & learning published in 1973

INTENDED USERS:

math teachers, curriculum leaders, math ed. researchers

CONTENTS/SUBJECT AREAS:

research related to math teaching

FORMAT:

annotated bibliography

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

appears dull and unimaginative in terms of reporting

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Snydow, Marilyn N.

TITLE: SMEAC Newsletter, Math Education, Volume 5, number 3

INSTITUTION: ERIC Information Analysis Center for Science, Math & Environmental Education, Columbus, OH

AVAILABILITY: 1973

Identification Number 082 996

Publisher/Source:

Cost MF .65 HC 3.29

Capsule Analysis

Issue Category math (secondary school)

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

summary of research on secondary school math, published during 1972

INTENDED USERS:

teachers

CONTENTS/SUBJECT AREAS:

Research on:
1. role of materials
2. math labs
3. computers and calculators
4. informing students of objective
5. informing students of objectives

FORMAT:

Newsletter

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Written specifically for teachers

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Snydow, Marilyn N. and Fred J. Weaver

TITLE: Using Research: A Key to Elementary School Math Revision

INSTITUTION:

AVAILABILITY:

Identification Number ED 120 013

Publisher/Source: Information Reference Center, The Ohio State U., 1200 Chambers Road, 3rd Floor, Columbus OH 43212

Cost $3.00

Capsule Analysis

Issue Category math

Sub-category

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

To present and answer questions which teachers frequently ask about learning and teaching of math

INTENDED USERS:

math teachers

CONTENTS/SUBJECT AREAS:

1. attitudes & interests
2. organizing for instruction
3. promoting effective instruction
4. differentiating instruction
5. instructional materials & media
6. addition and subtraction with whole numbers
7. multiplication & division with whole numbers

FORMAT:

Booklet

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

None

EVALUATIVE INFORMATION:

Seems interesting, well organized, but this evaluator wonders for whom it was really prepared and who will read and use it.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:
Snydow, Marilyn N. and Fred J. Weaver

TITLE:
Research on Math Education (K-12) reported in 1972

INSTITUTION:
ERIC Information Analysis Center for Science, Math & Environmental Education, Columbus, OH

AVAILABILITY:

Identification Number
ED 076 437

Publisher/Source:
Center for Science, Math & Environmental Education, Columbus, OH

Cost
$1.25

Capsule Analysis

Issue Category math education

Sub-category research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

teachers, researchers

CONTENTS/SUBJECT AREAS:

research related to math teaching and learning published in U.S. in 1972

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Snydow, Marilyn N.

TITLE: Research on Math education (K-12) reported in 1971

INSTITUTION:

AVAILABILITY:

Identification Number ED 064 126

Publisher/Source:

Cost .65 MF HC 3.29

Capsule Analysis

Issue Category math education

Sub-category research

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:
teachers, researchers, curriculum directors

CONTENTS/SUBJECT AREAS:

FORMAT:

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Snydow, Marilyn and Alan C. Riedesel

TITLE: Research on Elementary Math, Prep IX

INSTITUTION: Pennsylvania State University, University Park
Sponsor agency (OE-DHEW)

AVAILABILITY:

1970

Identification Number ED 034 087

Publisher/Source: EDRS

Cost .50 MF 3.20 HC

Capsule Analysis

Issue Category math education

Sub-category research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Interpretation and evaluation of elementary math research literature and current teaching practice

INTENDED USERS:

teachers, curriculum directors

CONTENTS/SUBJECT AREAS:

1. research responses re: elementary math questions
2. generalization and implications on elementary school math, the authors believe to be clearly substantiated by research

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Marilyn N. Snydow, Fred J. Weaver

TITLE: Attitudes and Interests, Set A, Using Research: A Key to Elementary School Math

INSTITUTION: Pennsylvania State University, University Park, Center for Cooperative Research with Schools

AVAILABILITY: 1970

Identification Number ED 038 283

Publisher/Source:

Cost .25 MF .50 HC

Capsule Analysis

Issue Category math education

Sub-category attitudes & interests

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Student attitudes and interests in math at elementary school level

INTENDED USERS:

CONTENTS/SUBJECT AREAS:

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

too brief to be comprehensive

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Steffe, Leslie P., ed.

TITLE: Research on Math Thinking of Young Children: Six Empirical Studies

INSTITUTION: National Council of Teachers of Math

AVAILABILITY:

Identification Number ED 111 681

Publisher/Source: National Council of Teachers of Math, 1906 Association Drive, Reston, VA 22091

Cost NCTM $3.90 MF .76 plus postage

Capsule Analysis

Issue Category math education

Sub-category

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

Present analysis of six empirical studies in math learning

INTENDED USERS:

Researchers

CONTENTS/SUBJECT AREAS:

1. equivalence and order relations
2. classification and seriation
3. interdependence of classification, seriation & number concepts
4. Boolean algebra,
5. conservation and measurement

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Useful for those interested in additional and related research

EVALUATIVE INFORMATION:

Useful

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Trimner, Ronald G.

TITLE: A Review of the Research Relating Problems Solving & Math Achievement to Psychological Variables & Relating These Variables to Methods Involving or Compatible with Self-Correcting Manipulative Math Materials.

INSTITUTION: Southern Illinois University, Edwardville, ILL

AVAILABILITY: 1974

Identification Number ED 092 402

Publisher/Source: EDRS

Cost MF .75 HC 1.85 plus postage

Capsule Analysis

Issue Category math education

Sub-category problem solving

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

INTENDED USERS:

math education researchers

CONTENTS/SUBJECT AREAS:

FORMAT:

Literature review

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Research related to problem solving may be useful to teachers

ANNOTATED BIBLIOGRAPHY

BASIC SKILLS:
READING

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Carl B, and others

TITLE: Treating Reading Disabilities: The Specialists Role
PREP V (Fourth monograph in PREP reading series)

INSTITUTION: Bureau of Research/office of education

AVAILABILITY:

Identification Number ED 034 081

Publisher/Source: 78 p. ERDS

Cost

Capsule Analysis

Issue Category Reading

Sub-category reading disability

Information on Implications

Methods of handling reading disability within the school

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	reading coordinator				XX	
	programmed tutoring				XX	
	use of physical education				XX	
	small group remedial work				XX	
	reteaching				XX	
	compensatory programs				XX	

MAIN EMPHASIS/PURPOSES:

diagnosis, treatment of reading disability, procedures for establishing program

INTENDED USERS:

primarily the reading staff; also useful to others in the school system planning to undertake a reading disability improvement program

CONTENTS/SUBJECT AREAS:

PREP Kit includes:
- general synthesis and interpretation
- references
- diagnostic and correctional procedures
- individualizing reading instruction
- ERIC keeps the specialist informed

FORMAT:

booklet

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

self-instructional

EVALUATIVE INFORMATION:

Synthesis and interpretation is brief with no citation of research synthesized; however, emphasis is upon implications rather than research itself.

Procedures sections appear useful.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: The Essential Skills Program: Brief History and Future Plans

INSTITUTION: American Educational Research Association

AVAILABILITY:

Identification Number ED 109 605

Publisher/Source: AERA

Cost $1.58

Capsule Analysis

Issue Category Reading

Sub-category Essential skills program

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

reading instruction, reading programs, reading research, reading skills

INTENDED USERS:

teaching of reading

CONTENTS/SUBJECT AREAS:

same as emphasis

FORMAT:

paper presented at annual meeting of AERA

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

major short-term and long-term research efforts in human learning

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Blanton, William E.

TITLE: PreSchool Reading Instruction: Information for the Administrator PREP 39

INSTITUTION: Indiana University, Bloomington. NIE sponsoring agency

AVAILABILITY:

Identification Number ED 078 962

Publisher/Source: U.S. Government Printing Office, DHEW Pub. No. (NIE) 73-27625, PREP-30,

Cost EDRS .65 MF, 3.29 HC, DHWE .55

Capsule Analysis

Issue Category ______________________

Sub-category ______________________

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

To aid school administrators who are exploring the possibilities of preschool reading instruction

INTENDED USERS:

school administrators

CONTENTS/SUBJECT AREAS:

1. When to begin preschool reading instruction, effects of traditional reading experience on reading readiness and reading achievement.
2. Steps the administrator takes in implementing change through preschool reading instruction

FORMAT:

booklet

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

very good

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Blanton, William E.

TITLE: A Teacher's Guide to Preschool Reading Instruction, PREP-40

INSTITUTION: Indiana University, Bloomington, Ind. NIE

AVAILABILITY: 1973

Identification Number ED 078 963

Publisher/Source: Superintendent of Documents (stack #1780-01115, PREP 40.40, GPO bookstore)

Cost 1.25 postpaid, 1.00 GPO Bookstore
EDRS MF .65 HC 3.29

Capsule Analysis

Issue Category ____________________

Sub-category ____________________

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Assistance for preschool teachers

INTENDED USERS:

preschool teachers

CONTENTS/SUBJECT AREAS:

Answers for:

1. when should reading instruction begin?
2. how does traditional kindergarten experience affect readiness reading?
3. does formal reading instruction at preschool level in children experiencing emotional problems adversely affect their attitudes toward reading.

FORMAT:

booklet

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Very good

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Nila Banton, and others

TITLE: Readiness for Reading and Related Language Arts. A Digest of Current Research

INSTITUTION: National Council of Teachers of English

AVAILABILITY:

Identification Number ED 089 360

Publisher/Source: National Council of Teachers of English

Cost $3.15

Capsule Analysis

Issue Category Readiness

Sub-category Reading & language arts

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	Readiness for Reading				XX	
	Readiness for oral & written language				XX	
	Readiness for spelling				XX	
	Vocabulary readiness				XX	

MAIN EMPHASIS/PURPOSES:

Applying "readiness" concepts to growth in reading.

INTENDED USERS:

Teachers of reading and language arts skills

CONTENTS/SUBJECT AREAS:

As listed under emphasis

FORMAT:

Chapter sequence/narration, 62-page paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:
knowledge of "readiness concepts"

EVALUATIVE INFORMATION:

N.A.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Desberg, Peter and Berdiansky, Betty

TITLE: Word Attack Skills: Review of Literature

INSTITUTION: SWRL

AVAILABILITY:

Identification Number ED 034 670

Publisher/Source: EDRS, 110 p.

Cost MF ____ HC ___

Capsule Analysis

Issue Category reading

Sub-category word attack skills

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	basal method				XX	
	linguistic method				XX	
	phonic/linguistic				XX	
	i.t.a.				XX	

MAIN EMPHASIS/PURPOSES:

Description of 11 major reading systems. Review of current word attack research. General orientation to problems and strategies for attacking these problems.

INTENDED USERS:

Researchers would find conceptualizations and criteria useful. (Classroom teachers might find somewhat useful but language is highly technical)

CONTENTS/SUBJECT AREAS:

Conceptualization of readingprocess
Review of general reading models with comparison of methods
Review of current phonic and word attack research

FORMAT:

Review and discussion
Extensive bibliography

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Primarily useful to researchers in the field of reading

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Foorman, Barbara R.

TITLE: A look at Reading Diary Studies; The State of the Art and Implications From Cognitive-Developmental Theory

INSTITUTION:

AVAILABILITY:

Identification Number ED 092 903

Publisher/Source: Special invitational interdisciplinary seminar on Piagetian theory and its implications for the helping professions

Cost $1.85

Capsule Analysis

Issue Category reading

Sub-category reading diary study method

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

to expose teachers to the reading diary method of helping students to read

INTENDED USERS:

reading teachers

CONTENTS/SUBJECT AREAS:

"miscue analysis"

"cognitive-development theory"

FORMAT:

27 page paper, narrative

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

informative to reader

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Harris, Alberta J., ed, Sipay, Edward R., ed.

TITLE: Readings on Reading Instruction, 2nd edition

INSTITUTION:

AVAILABILITY: 1972

Identification Number ED 074 439

Publisher/Source: David McKay Co., Inc., 750 Third Avenue, NY, NY 10017

Cost $5.95 paper

Capsule Analysis

Issue Category ______________________________

Sub-category ______________________________

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

reading

INTENDED USERS:

reading teachers, teachers of educational disadvantaged

CONTENTS/SUBJECT AREAS:

Compilation of articles related to reading and instruction

FORMAT:

book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Good--variety of articles included

The Psy. and psycholinguistics of reading
Grouping for Effective Reading Instruction

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Kuchenbecker, Shari Young

TITLE: Component Skills in the World Decoding Task for the Beginning Reading: An Annotated Cross-Referenced Bibliography

INSTITUTION: DHEW

AVAILABILITY:

Identification Number ED 106 769

Publisher/Source: SW Regional Laboratory for Educational Research & Development

Cost $6.97

Capsule Analysis

Issue Category reading

Sub-category subskills in decoding

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Annotative bibliographies, beginning reading, primary education, reading research

INTENDED USERS:

reading teachers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

233 item bibliography

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Presentation of relevant research addressing the primary subskills in the word decoding task.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR:
Maxwell, Martha J.

TITLE:
Results of the Survey of the Literature on Methods and Materials in Reading

INSTITUTION:
Marquette University

AVAILABILITY:

Identification Number
ED 059 015

Publisher/Source:
National Reading Conference

Cost
$.65 micro fiche only

Capsule Analysis

Issue Category reading

Sub-category methods and materials

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Basic reading, beginning reading, reading instruction, educational research, reading research, research needs, research reviews

INTENDED USERS:

reading teachers and researchers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

survey of available literature on methods and materials of reading

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

244 studies of methods and materials.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Sheldon, William D.

TITLE: What Research Tells us About the Teaching of Reading

INSTITUTION: International Reading Assn.

AVAILABILITY:

Identification Number ED 055 729

Publisher/Source: EDRS

Cost $3.29

Capsule Analysis

Issue Category reading

Sub-category teaching of reading

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political
pre-reading programs					
beginning reading instruction					
programs & grouping practices					
vocabulary & word analysis					

reading achievement

MAIN EMPHASIS/PURPOSES:

Beginning reading, early childhood education, reading achievement, programs, readiness, research, reading tests

INTENDED USERS:

reading teachers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

Two dissertations and 37 journal articles of research studies conducted in reading

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

general review of the literature

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: Modeling the Reading Process, Panel 4: Conference on Studies in Reading.

INSTITUTION: DHEW

AVAILABILITY:

Identification Number ED 108 174

Publisher/Source: DHEW

Cost $1.95

Capsule Analysis

Issue Category reading

Sub-category reading processes

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Developmental models for reading processes.

INTENDED USERS:

Teachers of reading

CONTENTS/SUBJECT AREAS:

- Word recognition
- Development of reading skills
- Eye movement guidance
- Complex reading tasks

FORMAT:

Panel report, reading research

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Information with list of references

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Paulak, Stephen A.

TITLE: Reading Comprehension--A Critical Analysis of Selected Factors Affecting Comprehension

INSTITUTION: U of Pittsburg

AVAILABILITY:

Identification Number ED 095 527

Publisher/Source: University Micro-films, PO Box 1764, Ann Arbor, Michigan 48106

Cost $10.00

Capsule Analysis

Issue Category Reading comprehension

Sub-category analysis

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Reading ability/comprehension/research

INTENDED USERS:

Those interested in comprehension
Teachers, reading specialists, etc.

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

1948-1972 doctoral dissertations of reading comprehension

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

review of factors affecting reading comprehension

EVALUATIVE INFORMATION:

none listed

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Ransom, Grayce A.

TITLE: Processes in Reading Comprehension

INSTITUTION: International Reading Assoc.

AVAILABILITY:

Identification Number ED 099 811

Publisher/Source: IRA World Congress in Reading

Cost $1.50

Capsule Analysis

Issue Category Reading comprehension

Sub-category "theoretical foundations"

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political
spiral reading curriculum	XX			XX	
background of research design				XX	

MAIN EMPHASIS/PURPOSES:

Cognitive processes, curriculum development, elementary education reading, processes
"Review of Research"

INTENDED USERS:

teachers of reading

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

Paper

Bibliography included

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Conclusions and recommendations

EVALUATIVE INFORMATION:

Available for reading processes

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: Attention and Motivation, Panel 3: Conference on Studies in Reading

INSTITUTION: NIE

AVAILABILITY:

Identification Number ED 112 391

Publisher/Source: DHEW

Cost $6.97

Capsule Analysis

Issue Category reading

Sub-category attention and motivation

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Classroom environment, reading research, ability, processes, self-concept, motivation, teacher improvement

INTENDED USERS:

reading teachers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

143 p. paper on conference reports

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

To explore attentional and motivational systems and the factors in classroom management that influence them.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: Learning and Motivation in Early Reading, Panel 8, Conference on Studies in Reading

INSTITUTION: NIE

AVAILABILITY:

Identification Number ED 112 392

Publisher/Source: DHEW

Cost $1.95

Capsule Analysis

Issue Category reading

Sub-category motivation

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Early reading, listening skills, reading research, reading skills, teaching methods

INTENDED USERS:

Teaching/reading teachers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

48 page conference report paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

The problem of this conference panel was to identify, develop and compare means by which children's motivation to learn basic reading skills may be strengthened and maintained.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Farr, Roger

TITLE: Reading: What Can Be Measured

INSTITUTION: Indiana University

AVAILABILITY: ERIC/CRIER Research Review Series

Identification Number ED 033 258

Publisher/Source: ERDS, 305 pp.

Cost MF ___ HC ___

Capsule Analysis

Issue Category reading

Sub-category tests and measurements

Information on Implications

Alternatives Addressed			Social	Legal	Economic	Technical	Political
	Assessing Achievement	standardized tests	XX			XX	XX
		informal measurement	XX			XX	XX
	Assessing Reading-related Variables	psychological measurement	XX			XX	XX
		physiological measurements	XX			XX	XX

MAIN EMPHASIS/PURPOSES:

To present the following:
- Problems in assessment
- Methods of assessment
- Guides to tests, test reviews, and published research literature in reading

INTENDED USERS:

Classroom teachers would find guidelines for classroom application of research particularly useful as well as discussion of problems and methods and the guides. "Experts" would find material useful. Researchers

CONTENTS/SUBJECT AREAS:

Measurement in reading; general perspectives.
Discussion of research on problems and methods of assessing reading, growth and related areas.
Guides to tests and measuring instruments in reading, Index to tests and reviews and to published research literature

FORMAT:

State of the Art Monograph produced by ERIC Clearinghouse on Reading

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Guidelines for use of research in classroom practice are self-instructional or could be used in workshop with teachers.

EVALUATIVE INFORMATION:

As a state of the art review, this appears highly useful particularly as the author focuses on suggestions for application of the research results.

Clarification of issues valuable in understanding and resolving these issues at the implementation level

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Carl B. and others

TITLE: Reading Difficulties: Reading and the Home Environment. The Principal's Responsibility PREP II (first in series of four reading monographs)

INSTITUTION: Bureau of Research/Office of Education

AVAILABILITY:

Identification Number ED 034 078

Publisher/Source: ERDS

Cost 60 pages

Capsule Analysis

Issue Category Reading

Sub-category Reading Disability

Information on Implications

Programs to Overcome Environmental Deficiencies

Alternatives Addressed

	Social	Legal	Economic	Technical	Political
Teacher improvement--in-service training				XX	
Creating new materials				XX	
Extending the school year				XX	
Involving the community				XX	
Multiple approaches				XX	

MAIN EMPHASIS/PURPOSES:

Defining the problem, promising programs, case studies, the leadership role of the principal

INTENDED USERS:

principals

CONTENTS/SUBJECT AREAS:

Synthesis of research on causes of the problem.
Case studies of successful programs.
References
A step by step guide to implementing similar program

FORMAT:

booklet

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

self-instructional

EVALUATIVE INFORMATION:

emphasis on application of research

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Carl B., and others

TITLE: Correcting Reading Problems in the Classroom, PREP 4

INSTITUTION: Bureau of Reading/ U.S. Office of Education

AVAILABILITY:

Identification Number ED 034 080

Publisher/Source: EDRS

Cost 77 pages

Capsule Analysis

Issue Category Reading

Sub-category Reading difficulties

Information on Implications

Not applicable: alternatives are not considered as such

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Extent of the problem, diagnosis of the problem, correction of the problem, including a look at successful programs.

INTENDED USERS:

classroom teachers

CONTENTS/SUBJECT AREAS:

The paper proceeds from a definition of the problem to suggestions for dealing with the problem in the classroom with practical suggestions for application of research by the classroom teacher.

FORMAT:

PREP Kit includes:
- Monograph synthesizing research,
- references,
- techniques for classroom diagnosis of reading problems,
- individualizing reading instruction,
- current reading research for the teacher.

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Self-instructional

EVALUATIVE INFORMATION:

A non-technical synthesis followed by very practical suggestions for diagnosis of reading difficulties and individualizing reading instruction.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Carl B., and others

TITLE: Establishing Reading Clinics: The Administrator's Role: PREP 3

INSTITUTION: Bureau of Research/US Office of Education

AVAILABILITY:

Identification Number Ed 034 079

Publisher/Source: EDRS

Cost 48 pages

Capsule Analysis

Issue Category Reading

Sub-category Reading difficulties

Information on Implications
types of reading clinics

Alternatives Addressed	Social	Legal	Economic	Technical	Political
the University clinic	?		XX	XX	
Public school clinics	XX		XX	XX	XX
mobile clinics	XX		XX	XX	XX

MAIN EMPHASIS/PURPOSES:

Primary learning difficulties discussed
Current approaches to the problem
Setting up a clinic program, including policy consideration

INTENDED USERS:

Superintendents and other top-level administrators who look at treatment of reading difficulties throughout the school system.

CONTENTS/SUBJECT AREAS:

Examination of the problem and the various approaches to dealing with the problem in the reading clinic. Examination of some issues related to establishing a clinic with steps to be taken in planning and implementing.

FORMAT:

PREP Kit includes:
- monograph aynthesizing and interpreting research;
- bibliography of references;
- list of university reading clinics for severe reading disabilities;
- sample book list for reading clincis
- list of available research documents in ERIC

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Self-instructional

Might also be useful to others who work with the administrator

EVALUATIVE INFORMATION:

The PREP Kit focuses on a particular problem area, presents a non-technical synthesis of research, and offers practical suggestions to the working administrator.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: Reading Strategies for Different Cultural and Linguistic Groups, Panel 9; Conference Studies in Reading

INSTITUTION: NIE

AVAILABILITY:

Identification Number ED 112 393

Publisher/Source: DHEW

Cost $3.32

Capsule Analysis

Issue Category Reading

Sub-category Cultural Aspects of reading

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Communication skills, dialects, reading ability, minorities, reading instruction, research, reading skills

INTENDED USERS:

Reading teachers of bilinguals

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

75 page conference report

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

The problem of this conference panel was to develop means (strategies, materials, techniques) by which children of cultural and linguistic minority groups can learn to read and communicate effectively in English as well as in the language or dialect of their respective group.

EVALUATIVE INFORMATION:

na

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Davis, Frederick B.

TITLE: The Literature of Research in Reading with Emphasis on Models. Final Report.

INSTITUTION: Rutgers

AVAILABILITY:

Identification Number ED 059 023

Publisher/Source: National Center for Educational Research and Development (DHEW/OE)

Cost $23.03

Capsule Analysis

Issue Category Reading

Sub-category literature on research

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Ed. research/ language development/language research/ learning theories/ literature reviews/ reading processes/ reading research/ research reviews/ research & development centers

INTENDED USERS:

researchers & teachers of reading

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

16 papers covering three general areas:
1. reading process
2. language development & reading
3. learning to read

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Massive search of the literature in the area of reading to find and synthesize all of the literature pertaining to models of reading development and process.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Goldbecker, Sheralyn S.

TITLE: Reading: Instructional Approaches; What Research Says to the Teacher

INSTITUTION: NEA

AVAILABILITY:

Identification Number ED 114 803

Publisher/Source: NEA

Cost $.76 microfiche only

Capsule Analysis

Issue Category reading

Sub-category research

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

Basic readng/ beginning readng/ ITA/ primary education/ reading development/reading instruction

INTENDED USERS:

teachers of reading

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

34 page book on reading research

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Discussing instructional approaches to reading, this book offers several definitions of reading and discusses teaching techniques, including early methods, the basal approach, and recent trends, among them the phonics approach, the linguistics approach, the long. experience approach, the i.t.a., individualized reading, concept development, and programmed and multi-media approaches.

EVALUATIVE INFORMATION:

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Gunn, M.

TITLE: What do We Know About High School Reading? What Does Research in Reading Reveal?

INSTITUTION: National Conference on Research in English

AVAILABILITY:

Identification Number ED 123 623

Publisher/Source: EDRS

Cost $6.01

Capsule Analysis

Issue Category Reading research

Sub-category Secondary education

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

English instruction, reading achievement, diagnosis, difficulty, improvement, instruction, insterests, levels, materials, programs, research, reviews, skills

INTENDED USERS:

Reading researchers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

112 page paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

1. preparation for teaching reading
2. variations in reading growth
3. reading attitudes
4. reading programs
5. practices in teaching reading
6. content reading
7. teaching materials
8. methods of evaluating reading growth

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Gunn, M. Agnella

TITLE: What We Know About High School Reading

INSTITUTION: National Council for Teachers of English

AVAILABILITY:

Identification Number ED 090 552

Publisher/Source: National Council for Teachers of English

Cost $3.15

Capsule Analysis

Issue Category Reading

Sub-category research/secondary reading

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	teaching techniques	XX	XX	XX	XX	
	instructional materials			XX	XX	

MAIN EMPHASIS/PURPOSES:

Help answer teachers' practical questions about the teaching of reading at the secondary level.

INTENDED USERS:

high school teachers (English and reading)

CONTENTS/SUBJECT AREAS:

Chapter sequence:
"Successful Reading Programs"
"Practices in Teaching Reading"
"Reading and the H.S. Student"
"Materials for Teaching Reading"

FORMAT:

51 pages

Chapter sequence

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Informative to meet needs of teacher questions

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: McLean, Beverly

TITLE: Reading Research: The State of the Art As It Reaches the Classroom

INSTITUTION:

AVAILABILITY: International Reading Assoc.

Identification Number ED 095 478

Publisher/Source: New Orleans, LA , 1974

Cost $1.50

Capsule Analysis

Issue Category Reading research

Sub-category history of reading research

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political

MAIN EMPHASIS/PURPOSES:

reading instruction, materials, research, teaching methods

INTENDED USERS:

classroom teachers

CONTENTS/SUBJECT AREAS:

listed under emphasis

FORMAT:

annotated bibliography

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Presentation of history of reading research to classroom teachers

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: McNinch, George H.

TITLE: Reading: Convention and Inquiry; 24th Yearbook of the National Reading Conference

INSTITUTION: ERIC Clearinghouse

AVAILABILITY:

Identification Number ED 116 148

Publisher/Source: HEW

Cost $.76 -- microfiche only

Capsule Analysis

Issue Category Reading

Sub-category summary of research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Literature reviews, reading improvement, instruction, interests, materials, programs, research, tests, teacher education

INTENDED USERS:

reading teachers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

310 pages

Papers presented at the 1974 Annual Meeting of the National Reading Conference

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Essays divided into six major sections: Research review, college and adult programs, teacher education, programs and practices, test materials, and research and theory

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: Applications of Existing Reading Comprehension Research, Panel 6, Conference on Studies in Reading

INSTITUTION: DHEW

AVAILABILITY:

Identification Number ED 108 175

Publisher/Source: DHEW

Cost $1.95

Capsule Analysis

Issue Category Reading

Sub-category Applying research in reading

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	Teaching methods	XX			XX	
	Teaching models	XX			XX	
	theories	XX		XX	XX	

MAIN EMPHASIS/PURPOSES:

To bring basic and applied research on reading comprehension to enhance theory and practice of reading

INTENDED USERS:

Reading instruction

CONTENTS/SUBJECT AREAS:

Learning theories, reading comprehension, reading instruction, processes, reading research

FORMAT:

32 page paper

conference report on reading

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

review of research to maximize the relevance of instructional practice

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Calfee, Robert

TITLE: Priorities on Research on Reading

INSTITUTION: Stanford

AVAILABILITY: ED 088 037

Identification Number

Publisher/Source: Unpublished

Cost $1.50

Capsule Analysis

Issue Category Reading research

Sub-category Priorities

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political
basic skills identification				XX	
critical program factors		XX	XX	XX	
development of test instruments		XX		XX	
analysis of human resource avail.	XX				XX

MAIN EMPHASIS/PURPOSES:

Steps to be included in reading research

INTENDED USERS:

researchers

CONTENTS/SUBJECT AREAS:

Reading research priorities

FORMAT:

13 page paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

step-by-step process development

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: William Fagan, Charles Cooper & Julie Jensen

TITLE: Measures for Research and Evaluation in the English Language Arts

INSTITUTION: National Council of Teachers of English

AVAILABILITY:

Identification Number NA

Publisher/Source: ERIC Library of Congress Catalog Card # 74-31744

Cost ?

Capsule Analysis

Issue Category Language arts

Sub-category Research & evaluation

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Language development, listening, literature, reading, ESL, teacher competency, writing

INTENDED USERS:

teachers & researchers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

214 page book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

For research organization and implementation of research. Series of research data in collection form.

EVALUATIVE INFORMATION:

Good

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Farr, Roger, Ed., and others

TITLE: Improving Reading Research

INSTITUTION: International Reading Assn.

AVAILABILITY:

Identification Number ED 119 133

Publisher/Source: International Reading Assn.

Cost

Capsule Analysis

Issue Category Reading

Sub-category Research improvement

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Reading research & criteria, research design, methodology, needs and problems

INTENDED USERS:

reading researchers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

126 pages

Papers presented at the Preconvention Institute on Research of the Annual Meeting of the International Reading Assn.

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Identifying and planning reading research
Design problems in reading research
Measurement Issues in reading research
Conducting longitudinal Research in reading
Interpreting the findings: some cautions
Linguistics in reading research
Linguistically sound research in reading
Social aspects of working with the schools
Reporting, the last major step in the research activity

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Page, William D.

TITLE: Help for the Reading Teacher: New Directions in Research

INSTITUTION: NIE

AVAILABILITY:

Identification Number ED 101 322

Publisher/Source: NIE/HEW

Cost $5.70

Capsule Analysis

Issue Category Reading

Sub-category Teachers/research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Cloze procedures, content reading, elementary-secondary reading, reading diagnosis, reading research

INTENDED USERS:

reading people

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

book

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

NA (only comparisons)

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Marshall S.

TITLE: Essential Skills and Skill Hierarchies in Reading, Panel 10, Conference on Studies in Reading

INSTITUTION: DHEW

AVAILABILITY:

Identification Number ED 108 176

Publisher/Source: DHEW

Cost $1.95

Capsule Analysis

Issue Category reading

Sub-category research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Reading research, research methodology, research needs

INTENDED USERS:

reading instructors

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

37 page panel report

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

To identify and validate behaviors essential or supportive to the acquisition of competent reading behavior.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Elias, Patricia

TITLE: A Critical Review of the Information Base for Current Assumptions Regarding the Status of Instruction and Achievement in Reading in the United States

INSTITUTION: National Reading Conference

AVAILABILITY:

Identification Number ED 058 012

Publisher/Source: Marquette University

Cost $.65 -- microfiche only

Capsule Analysis

Issue Category Reading

Sub-category Reading research

Information on Implications

	Social	Legal	Economic	Technical	Political
Alternatives Addressed					

MAIN EMPHASIS/PURPOSES:

Ed. research/literature reviews, reading achievement, reading instruction, reading processes, research design

INTENDED USERS:

reading teachers, and researchers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

Project 3

Targeted research & development program in reading (TRDPR)

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

1. controversy of literature reports
2. inequities of teacher preparations
3. inadequacies of research design and description
4. reading improvement

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Livo, Norma J.

TITLE: Reading Readiness: Research in Review

INSTITUTION: Indiana University

AVAILABILITY:

Identification Number ED 059 854

Publisher/Source: ERIC Clearinghouse

Cost $3.29

Capsule Analysis

Issue Category Reading readiness

Sub-category Research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Beginning reading, bibliographies, literature reviews, reading readiness, reading readiness tests, research reviews

INTENDED USERS:

Reading teachers and researchers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

Paper

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Reviews the studies involving the more commonly measured reading readiness factors, discusses some unique studies, and projects what some needs of future research should be.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Smith, Nila Banton

TITLE: Readng Research: Notable Findings & Urgent Needs

INSTITUTION: National Council of Teachers of English

AVAILABILITY:

Identification Number ED 085 676

Publisher/Source: National Council of Teachers of English

Cost $3.29

Capsule Analysis

Issue Category Research

Sub-category Reading research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	Questioning				XX	
	Critical research	XX		XX		XX
	Negro dialects	XX				

MAIN EMPHASIS/PURPOSES:

Research in reading, dialects, comprehension, development, improvement, instruction, programs, skills

INTENDED USERS:

Researchers

CONTENTS/SUBJECT AREAS:

Same as main emphasis, purpose on other side

FORMAT:

Citings of various researchers

Paper presented to Annual Meeting of National Assn. of Teachers of English, 1971

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Information source only

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Venezky, Richard L.

TITLE: A History of Research on Reading. Theoretical Paper No. 56

INSTITUTION: DHEW

AVAILABILITY:

Identification Number ED 116 157

Publisher/Source: NIE/DHEW

Cost $1.95

Capsule Analysis

Issue Category Reading

Sub-category Research

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed						

MAIN EMPHASIS/PURPOSES:

Learning processes/literature reviews, reading instruction, reading processes, research reviews

INTENDED USERS:

reading researchers or teachers

CONTENTS/SUBJECT AREAS:

Same as emphasis

FORMAT:

33 pages by University of Wisconsin (Madison) Research and Development Center for Cognitive Learning

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

The control of eye movements, the strategies involved in word recognition, the amount and types of overlapping processes, the role of subvocalization, the nature of the eye-voice span and the optimal methods of reading instruction.

EVALUATIVE INFORMATION:

NA

ANNOTATED BIBLIOGRAPHY

COMPETENCY-BASED
EDUCATION

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Hall, Mary; and Hall, William T.

TITLE: Great Expectations: Contemporary Statewide Schooling Reform and Some Victorian Antecendents

INSTITUTION: Oregon State Department of Education

AVAILABILITY:

Identification Number ED 120 930

Publisher/Source: EDRS

Cost MF $.83 HC $2.06 plus postage

Capsule Analysis

Issue Category competency-based education

Sub-category state mandated minimum standards

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	minimum grade requirements	XX	XX		?	XX
	minimum school standards	XX	XX		?	XX

MAIN EMPHASIS/PURPOSES:

To suggest needed areas of research & impact of current research.

INTENDED USERS:

Educational researchers

CONTENTS/SUBJECT AREAS:

Brief review of some research completed and underway concerned with impact of state mandated competency based education. Major portion on suggested future research directions.

FORMAT:

Paper read at AERA, 1975

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Too brief to be very useful to decision makers. Provides summary background information on Oregon experience with CBE and some research in Oregon. Feedforward information on needed research.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Matteson, Harold R.

TITLE: Function-Task-Competency Approach to Curriculum Development in Vocational Education in Agriculture: Research Report No. 1 (Relevant Section: Project Background)

INSTITUTION: Wisconsin University, College of Agriculture & Life Sciences

AVAILABILITY:

Identification Number ED 110 718

Publisher/Source: EDRS

Cost MF $.76 HC $1.95 plus postage

Capsule Analysis

Issue Category competency-based education

Sub-category career education (curriculum development)

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	Job analysis, Occup. analysis & competency approaches			XX	XX	
	Occupational areas or clusters approaches			XX	XX	
	Functions of Industry approach			XX	XX	
	Combination of above			XX	XX	

MAIN EMPHASIS/PURPOSES:
To explain the construction of the function-task-competency method of developing vocational education curricula

INTENDED USERS:
Curriculum developers in vocational agriculture

CONTENTS/SUBJECT AREAS:

Brief summaries of research related to four approaches to curriculum development.

Construction of conceptual model of fourth alternative.

FORMAT:

Research report

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Implementation of model in research study.

EVALUATIVE INFORMATION:

Presents some useful background and a theoretical model. Little information on implications.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: John F. Newport

TITLE: Performance-Based Materials for Use in an Elementary Science Education Teacher Training Program

INSTITUTION: Southwest Missouri State University

AVAILABILITY:

Identification Number ED 092 338

Publisher/Source: EDRS

Cost MF $.75 HC $12.60 plus postage

Capsule Analysis

Issue Category competency-based education

Sub-category science education

Information on Implications

		Social	Legal	Economic	Technical	Political
Alternatives Addressed	product-centered instructional objectives				XX	
	Process-centered instructional objectives				XX	
	Instruction Viewpoint of science education	XX			XX	
	Experiential viewpoint of science education	XX			XX	

MAIN EMPHASIS/PURPOSES:

The knowledge component
The teaching skills component
The product component

INTENDED USERS:

Primary: instructors of elementary science teachers
Secondary: materials also appear useful to elementary teachers who are planning competency-based education in science.

CONTENTS/SUBJECT AREAS:

The following sections appear most useful:

- Alternative approaches to elementary science in education
- Individualizing instruction
- Sources of objectives and emphases in science education
- Developing a philosophy of science education
- Identifying guides to be used in planning, directing and evaluating instructional activities

FORMAT:

Exercises or modules for use in the above areas

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

Although developed for use in teacher education, the materials seem self-explanatory and therefore usable by individual teachers or in in-service programs.

EVALUATIVE INFORMATION:

This entry is included even though it is not a review or synthesis of research because it is the next step in the research utilization process and presents to the prospective teacher a means of applying results of research synthesis.

ANNOTATED BIBLIOGRAPHY ENTRY

AUTHOR: Robert T. Utz, and others

TITLE: A Comparative Analysis of Two Modes of Implementing Competency-Based Instructional Systems

INSTITUTION: AERA

AVAILABILITY:

Identification Number ED 089 468

Publisher/Source: EDRS

Cost MR $.75 HC $1.50 plus postage

Capsule Analysis

Issue Category competency-based education

Sub-category implementation of CBE systems

Information on Implications

Alternatives Addressed	Social	Legal	Economic	Technical	Political
staffing issues			XX	XX	XX
evaluation issues				XX	XX

MAIN EMPHASIS/PURPOSES:

1. to examine issues and problems of implementing CBE systems
2. to examine staffing implications
3. to synthesize generalizations potentially applicable to the implementation of any CBE instructional system

INTENDED USERS:

School personnel contemplating implementation of CBE instructional system

CONTENTS/SUBJECT AREAS:

Discussion of issues and problems related to implementation of CBE in two schools.
Discussion of staffing and educational implications.

FORMAT:

Brief paper presented at 1974 AERA convention

CONDITIONS/PATTERNS OF USE/IMPLEMENTATION PROCEDURES:

EVALUATIVE INFORMATION:

Too brief to achieve purpose.
Primary use would be to suggest some of the issues that should be considered.